US 20130070977A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2013/0070977 A1

(43) Pub. Date: Mar. 21, 2013

Orandi et al.

(54) **STANDARD CALIBRATION TARGET FOR CONTACTLESS FINGERPRINT SCANNERS**

(71) Applicants: **Shahram Orandi**, Potomac, MD (US); **Fred Byers**, Knoxville, MD (US); **Stephen Harvey**, Gaithersburg, MD (US); **Michael D. Garris**, Boyds, MD (US); **Stephen S. Wood**, Chevy Chase, MD (US); **John M. Libert**, Rockville, MD (US); **Jin Chu Wu**, Frederick, MD (US)

(72) Inventors: **Shahram Orandi**, Potomac, MD (US); **Fred Byers**, Knoxville, MD (US); **Stephen Harvey**, Gaithersburg, MD (US); **Michael D. Garris**, Boyds, MD (US); **Stephen S. Wood**, Chevy Chase, MD (US); **John M. Libert**, Rockville, MD (US); **Jin Chu Wu**, Frederick, MD (US)

(21) Appl. No.: **13/623,898**

(22) Filed: **Sep. 21, 2012**

**Related U.S. Application Data**

(60) Provisional application No. 61/537,163, filed on Sep. 21, 2011.

**Publication Classification**

(51) **Int. Cl.**
*G06K 9/78* (2006.01)

(52) **U.S. Cl.**
USPC ..... **382/124**

(57) **ABSTRACT**

A contactless, three-dimensional fingerprint scanner apparatus, method, and system are described. The contactless fingerprint scanner can provide either, or both, topographical contrast of three-dimensional fingerprint features and optical contrast of a three-dimensional fingerprint surface. Data captured from scanning of a target with known geometric features mimicking fingerprint features can be examined as images or surface plots and analyzed for fidelity against the known target feature specifications to evaluate or validate device capture performance as well as interoperability. The target can be used by scanner vendors and designers to validate their devices, as well as to perform type certification.